

Duct Leakage

§151(f)10

Duct sealing, including field verification and diagnostic testing, is required in all climate zones in both prescriptive packages C and D. The details of the ing methods are covered in Appendix RC in the *Residential ACM Manual*. The bottom line requirement for new duct systems is that leakage is less than 6% of the supply air flow. (Note that the requirement is slightly less stringent for testing of existing duct systems as described in Chapter 8, Additions and Alterations.)

To comply with the duct sealing requirement, the installer must first perform the tests and document the results in the appropriate portion of the CF-6R form. In addition, a HERS rater must provide independent diagnostic testing and verification and then record the findings on the CF-4R form.

There are two alternatives to the duct testing requirement. The first is to meet the alternative Package D requirements that are listed in the notes that follow Table 151-C in the Standards (or Appendix B of this document). These alternative packages contain more stringent window and HVAC efficiency requirements as a tradeoff for not performing duct testing. For example, in climate zones 10, 11, and 12, the alternative package sets the maximum window U-factor at 0.38 (vs. 0.57), the maximum SHGC at 0.31 (vs. 0.40), and the minimum SEER at 13.0 (vs. mandatory minimums that vary by type and size).

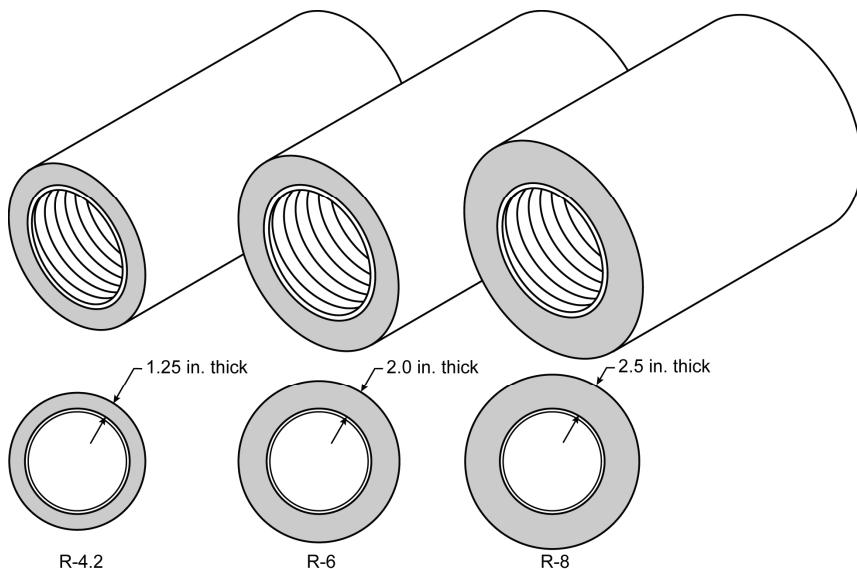


Figure 4-4 – R-4.2, R-6, and R-8 Ducts

The second alternative to duct testing is to use the performance compliance method. In this case, the computer program will automatically assume that the standard design (baseline) has been tested and sealed, while the proposed design will default to a higher leakage value.